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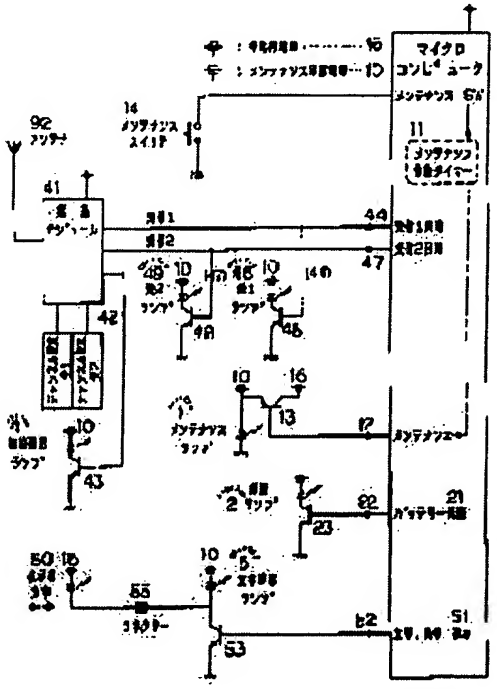
(54) MAINTENANCE DISPLAY SYSTEM

(57)Abstract:
PROBLEM TO BE SOLVED: To provide a system for easily detecting the maintenance of facility equipment whose maintenance check is always difficult without spending huge labors or time by instantaneously checking the operating state of the facility equipment at the setting place.
SOLUTION: A maintenance check circuit to be performed according to the switching action of a transistor (13 or the like) or a field effect transistor(FET) is constituted so as to be incorporated in facility equipment or as an another body. The operating state of each control circuit is confirmed by a light emission display means (1 or the like), and data discrimination and analysis is operated by a microcomputer, and the maintenance management of the whole system of the facility equipment is executed.



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* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]
[Claim 1] In the dispplay equipment with which information is made by the dispplay means based on the output signal emitted from a control means **** [as opposed to / the circuit for a maintenance check is prepared all over the circuit which constitutes said control means, and a transistor is included in this circuit for a maintenance check, and / this transistor] of the electrical potential difference for a check, The maintenance display system characterized by making the check of the operating state of said dispplay equipment by the luminescence display means according to a switching operation of the transistor which happens by **** of the electrical potential difference of the control signal outputted from said control means.
[Claim 2] The maintenance display system according to claim 1 characterized by to constitute the circuit of the transistor included in the luminescence display means and the object for a maintenance check for the check of the operating state of said dispplay equipment which contains either at least as another object, to connect the circuit of said exception object to this dispplay equipment with a means of communication on the occasion of maintenance and check of said dispplay equipment, and to be made the check of the operating state of this dispplay equipment.
[Claim 3] The maintenance display system according to claim 2 characterized by being made by the luminescence display means which the analysis of the maintenance data based on the data distinction circuit of a microcomputer was made, and presenting of the maintenance information on said dispplay equipment based on the data analysis was prepared in the circuit of another object for said maintenance check, or was connected to the another object.
[Claim 4] Dispplay equipment is a maintenance display system given in any 1 term of claims 1-3 characterized by consisting of a control circuit included in devices for traffic paints, such as a road.
[Claim 5] A maintenance display system given in any 1 term of claims 1-4 characterized by using light emitting diode as a luminescence display means.
[Claim 6] A maintenance display system given in any 1 term of claims 1-5 characterized by replacing with a transistor and using a field-effect transistor (FET).

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention is what always discovers a fault part comparatively simple on the occasion of the maintenance of the difficult facility equipment of the maintenance check for whether it being ****, and enables implementation of efficient maintenance check. The dispplay equipment which is in a height at the time of the maintenance of the indicator dispplay device especially installed along a road, a floodlight, a signalling lamp, etc., etc., and runs into difficulties to a maintenance check activity, Or a traffic-paint facility equipment with it difficult [to intercept traffic over long duration on the occasion of maintenance check of the dispplay equipment of the application represented by the road rivet embedded by the road etc.], It is related with the maintenance display used suitably in the case of maintenance check of the dispplay equipment for carrying out the information of the public relations, the advertisement, etc. for many and unspecified persons, and a notice.
[0002]
[Description of the Prior Art] A difficult facility equipment of the maintenance check for whether it being **** which is represented by the traffic-paint facility installed along a road always conventionally An effort great when failure occurs from constraint of location, a traffic situation, etc., and time amount progress to the check of a check -> cause of fault On ****, In addition, the facility equipment etc. had produced the serious problem that functional maintenance of the traffic paint which it originally has became difficult, and a very dangerous condition continued until the failure part was restored. Although there is a thing which the electrical potential difference to which the cell built in the construction LGT for roads fell further again is prevented [thing] by the resistance in a circuit, is [thing] un-conducting current, and makes a monitor lamp switch off It is not what was considered about the maintenance about the various functions which are restricted only to the application of the sag of a cell and are represented by said traffic-paint facility. Moreover, in spite of being used for Nighttime, it has the fundamental fault of a monitor lamp being switched off and not noticing a cell voltage fall.
[0003]
[Problem(s) to be Solved by the Invention] In order that this invention may solve this problem and may enable it to always maintain the difficult facility equipment of the maintenance check for whether it being **** well, It enables it to check immediately the operational status concerning the function in which a facility equipment is various, by the display system on the spot in which this facility equipment was installed by putting in MENTENANSUSUITCHI ** connected to the circuit for check. When fault is discovered, a fault tends to be detected quickly and it is going to restore a facility equipment at an early stage.
[0004]
[Means for Solving the Problem] This invention has the following composition for the purpose of solving the above-mentioned conventional problem. Namely, the maintenance display concerning this invention In the dispplay equipment with which information is made by the dispplay means based on the output signal emitted from a control means **** [as opposed to / the circuit for a maintenance check is prepared all over the circuit which constitutes said control means, and a transistor is included in this circuit for a maintenance check, and / this transistor] of the electrical potential difference for a check, It is made as [be / the check of the operating state of said dispplay equipment / possible] with a luminescence display means by switching operation of the transistor which happens by **** of the electrical potential difference of the control signal outputted from said control means.
[0005] Moreover, this invention maintenance display constitutes the circuit of the transistor included in the luminescence display means and the object for a maintenance check for the check of the operating state of said dispplay equipment which contains either at least as another object, connects the circuit of said exception object to this dispplay equipment with a means of communication on the occasion of maintenance and check of said

dispplay equipment, and is made as [be / the check of the operating state of this dispplay equipment / possible].
[0006] And the analysis of maintenance data is made in the data distinction circuit of a microcomputer, and this invention maintenance indicating equipment is made again by luminescence display means by which presenting of the maintenance information on said dispplay equipment based on data analysis was connected to the inside of the circuit of another object for said maintenance check, or its another object.
[0007] In the facility fields for traffic paints, such as a road, it is going to utilize this invention maintenance display further again as what consists of a control circuit included in the device of dispplay equipments for traffic paints, such as a road.
[0008] In addition, light emitting diode is used for this invention maintenance display as a luminescence display means used for a maintenance check again.
[0009] And this invention maintenance indicating equipment is replaced with the transistor used into the circuit for a maintenance check, and a field-effect transistor (FET) is used for it again.
[0010]
[Embodiment of the Invention] First, the maintenance of the spontaneous light type road rivet embedded and installed in a road about the example of the first operation gestalt of this invention is explained using drawing 1 and 2. (b) (a):plan, which show the spontaneous light type road rivet A constituted so that drawing 1 might apply this invention maintenance display system and the operating state might be maintained and checked simply: It is cross-section structural drawing and luminescence dispplay is made according to the actuation program set up beforehand by the control signal emitted from control circuit A4 which the emitter A1 used accumulation-of-electricity equipment A2 as the power source, and was included in the control board. That is, A3 is an illuminance sensor, when an illuminance falls rather than the fixed set point at the time of twilight and a sudden shower, the illuminance sensing signal is sent to control circuit A4, and as a result based on the control signal of a predetermined actuation program (it blinks for example, the whole number of fixed seconds) with which the emitter A1 was set up, actuation (repeat of flashing etc.) is made.
[0011] In case it is the fall of the are recording power of this accumulation-of-electricity equipment A2, in order the power generated by solar-battery A5 is accumulated in accumulation-of-electricity equipment A2, to be stabilized in an emitter A1, and the electric power supply is made, and to prevent degradation of accumulation-of-electricity equipment A2 the very thing, the accumulation-of-electricity equipment protection network A6 is established in the control board. That is, it is made as [halt / the electric power supply to an emitter A1] until the accumulation-of-electricity equipment protection network A6 operates and the are recording power of accumulation-of-electricity equipment A2 is recovered, when it becomes below the setting power that has little generated output by SIGMET continuing etc., and has are recording of power. And the maintenance checking circuit for maintenance and check is built in this spontaneous light type road rivet A. It is made as [light up / the luminescence annunciator of the maintenance lamp 1 in which under actuation of a maintenance check is shown]. During actuation of a maintenance checking circuit, when the accumulation-of-electricity equipment protection network A6 is operating, the accumulation-of-electricity equipment protection lamp 2 lights up. If illuminance sensor sensing is performed normally, the check of an operating state is simply made possible by each luminescence display means of the maintenance lamp 1 -- the sensor sensing lamp 3 lights up -- the protection (accumulation-of-electricity equipment) lamp 2, and the sensing (sensor) lamp 3.
[0012] When there is fault that an emitter A1 does not blink conventionally by this, Although it was unknown whether the cause was what depends on other failures whether illuminance sensor A3 operates normally or it will not be because the accumulation-of-electricity equipment protection network A6 is operating and the electric power supply to an emitter A1 is stopped temporarily further again Since near fault can be guessed with each luminescence display means for a maintenance check by this invention maintenance display system, it becomes easy to form a cure. In addition, if made as [fix / it / check and], without digging up a road rivet at every fault like before by removing the lockscrew A8 which is fixing the plastic lens object A7 of this spontaneous light type road rivet A as shown in drawing 1 , the time amount required by restoration of a failure part can be managed with a necessary minimum short time also about the blockade performed between check and repair in short ****, and maintenance and check will become very easy. In addition, in drawing 1 , A9 is waterproofing packing, such as a product made of rubber, and is made as [achieve / so that the moisture of storm sewage etc. may not trespass upon the interior the inside of the body with which the accumulation-of-electricity equipment A2 of the spontaneous light type road rivet A by which laying-under-the-ground installation was carried out was contained, and control circuit A4 were incorporated, such as a control board and a light-emitting part, / a waterproofing function].
[0013] Moreover, although the above-mentioned explanation explained the case where actuation of a

maintenance checking circuit was always set as actuation in control circuit A4 For example, a program which operates only in the time zone restricted by the signal based on the sensing signal sent from sensing sensor A3 may be constructed. Luminescence dispplay is made, and a maintenance checking circuit may be stopped at Nighttime with much power consumption, or the traffic of a car makes it operate only in little several hours of midnight conversely, and it may be made with a setup of maintenance and check being performed.

[0014] Then, the actuation is explained in full detail with the block diagram of drawing 2 having shown the circuit of an outline about the above-mentioned spontaneous light type road rivet A explaining the example of the first operation gestalt to which this invention maintenance display system was applied. The maintenance lamp 1 for a maintenance check was formed, the base terminal of the transistor 13 which firm output of the power output 12 for a check of that maintenance is carried out, and was connected to the maintenance lamp 1 with this output 12 ****(ed), the energization by the switching effectiveness of a transistor took place, and the maintenance lamp 1 shown in "under maintenance circuit actuation" has switched on the light in the block diagram showing actuation of the spontaneous light type road rivet A of drawing 2 . Since 16 connected to the collector terminal of this transistor 13 among drawing is a power source for actuation by which firm gas is carried out from accumulation-of-electricity equipment, if maintenance lamp 1 the very thing does not light up, it will check the existence of the abnormalities of accumulation-of-electricity equipment first, or should just check the circuit of the maintenance lamp 1. That is, it is shown whether accumulation-of-electricity equipment is committing this maintenance lamp 1, and the duty which can be functionally said also as a power-source actuation lamp is achieved in that semantics.

[0015] Moreover, although it is for accumulation-of-electricity equipment A2 being in the inside of the body A spontaneous light type road rivets, and the power electromotive was carried out [power] by solar-battery A5 being conserved, being stabilized irrespective of fluctuation of intensity of radiation, and supplying power When the power with which there was much power consumption and it was accumulated when a day with little intensity of radiation, such as rainy weather, continued, as explained in full detail above decreases, The protection network is incorporated in order to avoid that an excessive load is applied and this dc-battery itself deteriorates, when a dc-battery is used as accumulation-of-electricity equipment A2. When this accumulation-of-electricity equipment protection network operates and an output 22 is made, by ****(ing) to the base terminal of a transistor 23, energization by the switching effectiveness of a transistor occurs and it is made as [light up / the protection lamp 2 meaning "under protection network actuation"].

[0016] Illuminance sensor A3 is built in the appearance furthermore mentioned above to this spontaneous light type road rivet A. Actuation should do based on the predetermined actuation program control signal with which actuation was made based on the illuminance sensing signal, and the emitter A1 was set up when an illuminance fell rather than the fixed set point at the time of twilight and a sudden shower. An output 32 is made by dispatch and coincidence of this control signal, and the base terminal of a transistor 33 ****, energization by the switching effectiveness of a transistor occurs, and it is made as [light up / the sensing lamp 3 meaning "under illuminance sensor sensing"].

[0017] Next, the car approach direction dispplay system for avoiding a collision at the crossing of the car which runs two crossing roads upon meeting suddenly is explained to an example about the example of the second operation gestalt of this invention based on drawing 3 -9. crossing 6*7 when, as for drawing 3 , the main road 7 and the bypath way 6 cross each of the car sensing equipments 63 and 65 with which the approach direction sensing sensor B which expressed and applied this invention was built in -- crossing 6*7 It is installed for meeting. the front bypath way 6 -- Sensing and detection of a car whose each passes through the bypath way 6 by making 64 and 66 into detection area are performed. The bypath way 6 to crossing 6*7 Crossing 6*7 which met the main road 7 from each of the car sensing equipments 63 and 65 only when the going car was detected Were installed to the front. Wireless transmission is carried out at the warning dispplay equipments 73 and 74 with which the warning dispplay system C which applied this invention was built in. the main road 7 top -- crossing 6*7 the driver of the going transit cars 71 and 72 etc. -- receiving -- the bypath way 6 to crossing 6*7 existence of the car which approaches, and its approach direction -- reporting -- warning -- emitting -- cautions -- ******** -- it is made like.

[0018] Drawing 4 is the car sensing equipments 63 and 65 with which the circuit for a maintenance check which applied this invention was built in. After converging the infrared radiation emitted from the car which advanced into the detection area 64 and 66 with Fresnel lens 81, reaching the thermal element, making sensing of a car and making processing of sensing information with a microcomputer It is a crossing 6*7 about the bypath way 6 top. Only when the going transit car is detected, it is made as [carry out / at the warning dispplay equipments 73 and 74 currently separately installed from the transmitting antenna 82 / wireless transmission]. In addition, 83 in drawing is a power source for a photovoltaic cell being shown, becoming car sensing equipment 63, the

accumulation-of-electricity equipment built in in 65, and a set, and working the amplifying-circuit -> microcomputer control-section -> signal transmitting section of this equipment.
[0019] Drawing 5 is the photovoltaic cell 93 as a power source for working these equipments by transmitting electricity to the warning container reference plate 91, the control box 94 and a receiving antenna 92, and the accumulation-of-electricity equipment built in the control box 94, and the warning dispplay equipments 73 and 74 which consisted of **********.
[0020] It sets to drawing 3 and car sensing equipment 63 is a crossing 6*7 about the bypath way 6. When it goes and the car 61 it runs has been sensed in the detection area 64 As mentioned above, sensing / detection process in car sensing equipment 63 is performed. Crossing 6*7 Go, perform the judgment with the vehicle for detection to approach, and the warning dispplay equipments 73 and 74 are operated by wireless. It is a crossing 6*7 about the main road 7 top. As opposed to the driver of the car 71 it goes and runs etc. The rightward arrow head 95 of the warning container reference plate 91 of drawing 5 (b) of warning dispplay equipment 73 is blinked, it combines with the flashing display "under vehicle approach", and warning is reported. Cautions ******** one side, It is a crossing 6*7 about the main road 7 top. Blink the leftward arrow head 96 of the warning container reference plate 91 of drawing 5 (c) of warning dispplay equipment 74 also to the driver of the car 72 it goes and runs from hard flow etc., combine with the flashing display "under vehicle approach", report warning, and cautions are ******(ed). It is made as [avoid / beforehand / the collision of a car].
[0021] moreover, drawing 3 -- setting -- car sensing equipment 65 -- the bypath way 6 top in the detection area 66 -- crossing 6*7 from, when the car 62 keeping away has been sensed It is made as [induce / malfunction by the infrared radiation from the car going back], without being excepted from the judgment with the car under approach by distinction of sensing / detection process of car sensing equipment 65, and a control signal being sent to the warning dispplay equipments 73 and 74.
[0022] In addition, a car is a crossing 6*7 to the coincidence from the both sides which faced the bypath way 6 of drawing 3 across the main road 7. Go and also about the case where it is approaching The flashing display of the arrow head which above-mentioned predetermined sensing / detection process is performed, and a control signal is transmitted from both the equipments of the car sensing equipments 63 and 65 to the warning dispplay equipments 73 and 74, respectively, combines the car sensing equipments 63 and 65 with the flashing display "under vehicle approach", and shows the approach direction of a car is made. In this case, the alarm display of the leftward arrow head 96 shown in the alarm display and drawing 5 (c) of the rightward arrow head 95 the flashing display of an arrow head is indicated to be to drawing 5 (b) according to the program set up beforehand is performed by turns by a unit of several seconds, respectively, or warning dispplay is made with a car approach warning device with which the arrow head of the both-directions sense on either side was arranged.
[0023] In the car approach direction dispplay system for avoiding a collision at the crossing of drawing 3 -5 mentioned above upon meeting suddenly, this invention maintenance display is applied in the warning dispplay system C built in the approach direction sensing sensor B built in the car sensing equipments 63 and 65, and the warning dispplay equipments 73 and 74. Hereafter, actuation of drawing 6 , the approach direction sensing sensor B shown in 8, and the warning dispplay system C is explained in full detail with a flow chart. In addition, in (a) of the warning dispplay equipments 73 and 74, (b) expresses each control panel of this invention maintenance display system for the appearance of the equipment with which they were built in to drawing 7 , the car sensing equipments 63 and 65 with which 9 built these [B and C] in, and a list.
[0024] If put into the maintenance switch 14 in the flow chart which shows actuation of the approach direction sensing sensor B of drawing 6 , an output 12 is outputted by electromotive [of the fixed time-amount (for example, 30 minutes) maintenance check power source 10 which the maintenance actuation timer 11 started and was set up], it is ****(ed) at the base terminal of the transistor 13 connected to the maintenance lamp 1, and the maintenance lamp 1 "under maintenance circuit actuation" is shown will switch on the light. 16 [in addition,] connected to the collector terminal of this transistor 13 -- the car sensing equipments 63 and 65 of drawing 3 -5 -- in order to work each, it is the power source for actuation by which firm gas is carried out from accumulation-of-electricity equipment.
[0025] By the way, the dc-battery (battery) used for this example of an operation gestalt as accumulation-of-electricity equipment is in the body of the car sensing equipments 63 and 65 having the approach direction sensing sensor B. Although it is for the power by which electromotive was carried out being conserved, being stabilized irrespective of fluctuation of intensity of radiation, and supplying power by the photovoltaic cell 83 shown in drawing 7 (a) When a day with little intensity of radiation, such as rainy weather, continues and the power with which many power consumption was accumulated as compared with the generation-of-electrical-energy force decreases, in order to avoid that an excessive load is applied to a dc-battery and the dc-battery itself deteriorates, the protection network 21 is incorporated. Then, as a result of making an output 22 from that

circuit at the time of this dc-battery protection network 21 actuation, when the base terminal of a transistor 23 ****, energization by the switching effectiveness of a transistor occurs and it is made as [light up / the protection lamp 2 meaning "under protection network actuation"]. When the approach direction sensing sensor B should not operate by the ability checking actuation of this dc-battery protection network, the condition of that they are that power is not supplied or the thing depended on the fault of equipment in addition to this since that cause is dc-battery protection network operating, etc. and faults can be judged comparatively easily.

[0026] Moreover, when the sensing element of the approach direction sensing sensor B has sensed the car which passes through detection area, it judges with an object vehicle [sensing / detection process is performed and] (car which approaches toward a crossing in the example of drawing 3 -5) to detect, and in order to make it transmit to warning dispplay equipment by wireless, a signal output is made to the transmitting section. then, take out this detection output 32 from the object sensing circuit 31, make it output as an object for a maintenance check, make it **** to the base terminal of a transistor 33, it is made to energize according to the switching effectiveness of a transistor, and the sensing lamp 3 is turned on -- making -- "-- now -- sensing -- an object vehicle -- under detection -- " -- it is made as [check / it]. A check comes to be able to perform immediately the activity (for actual dispplay to be checked visually) of a sensing -> detection -> actuation check currently conventionally performed by two operators by one operator by enabling sensing / detection check of this sensor.

[0027] And on the control panel 80 of the approach direction sensing sensor B shown in drawing 7 (b), each display lamp 1, 2, and 3 is turned on, and the above-mentioned maintenance lamp 1, the protection lamp 2, and the sensing lamp 3 are checked. In addition, 14 in drawing is a maintenance switch into which it is put by the beginning of a verification procedure, and is a reset (reboot) switch used when repair etc. is performed by the fault extract by check, it finishes, 15 in drawing reboots and it performs an actuation check.

[0028] Next, if put into the maintenance switch 14 in the flow chart which shows actuation of the warning dispplay system C of drawing 8 An output 12 is outputted while an electrical potential difference is supplied from the maintenance check power source 10 between fixed time amount (for example, 30 minutes) which the maintenance actuation timer 11 started and was set up. The base terminal of the transistor 13 connected to the maintenance lamp 1 ****, and the maintenance lamp 1 in which "under maintenance circuit actuation" is shown lights up. In addition, 16 connected to the collector terminal of this transistor 13 is a power source for actuation by which firm gas is carried out from accumulation-of-electricity equipment in order to operate each function of the warning dispplay equipments 73 and 74 of drawing 3 -5.

[0029] and also about the dc-battery (battery) for working these warning dispplay equipments 73 and 74 Like above-mentioned car sensing equipment 63 and the dc-battery for 65 operation, in order to avoid degradation of the dc-battery, the dc-battery protection network 21 is incorporated. In case a protection network operates, it energizes according to the switching effectiveness of the transistor which happens because an output 22 is taken out from the circuit and the base terminal of a transistor 23 ****, and lighting of the protection lamp 2 "under protection network actuation" is made. therefore, interruption of an electric power supply [be / a cause in case the warning dispplay system C does not operate according to the check of actuation of the dc-battery protection network 21 like the case of the approach direction sensing sensor B / under / dc-battery protection network actuation / depending] -- or whether it is what is depended on the fault of equipment in addition to this can judge easily.

[0030] Then, the wireless lamp 4, carrier 1 lamp 46, and carrier 2 lamp 49 are explained. When sensing / detection process of a car is performed in said approach direction sensing sensor B and the judgment of object car detection is made, it is transmitted to warning dispplay equipment (warning dispplay equipments 73 and 74 of drawing 3 -5) by wireless, and is received by the wireless module 41 in the warning dispplay system C built into this warning dispplay equipment through the receiving antenna 92. An output is made as an active signal with which the data signal with which the subcarrier was removed in the wireless module 41 is taken out, and, as for the received signal, controls concrete dispplay etc. If this signal output is made to **** to the base terminal of a transistor 43 as an output 42 of a wireless check circuit, it can check that energization by the switching effectiveness of a transistor takes place, lighting of the wireless check lamp 4 "under wireless reception" is made, and reception is made normally.

[0031] By the way, when two or more set number is used in many cases, for example, the warning dispplay equipment in the example of the car approach direction dispplay system of drawing 3 -5 is in arrangement of the car of drawing 3 , the arrow head 96 of facing the left [arrow head / 95 / rightward] must be displayed on warning dispplay equipment 74 by warning dispplay equipment 73, respectively, and the warning dispplay equipment made into the purpose must be controlled correctly. The method of the dispatch from which two or more channels are prepared and a frequency differs having done enough, in order to avoid malfunction (i.e., in

order to prevent the interference at the time of reception), when it is the example of the second operation gestalt to which this invention was applied, or setting a data setup as a proper pattern for every channel is taken. Therefore, from the need of making ID (identity recognition) in agreement in a receiving circuit, and connecting so that it may become ID (identity recognition) of the frequency of a radio signal or data pattern sent from a transmitter, and a pair, carrier 1 lamp 46 and carrier 2 lamp 49 were prepared in order to check the propriety of the connection.

[0032] namely, the case where carrier 1 circuit output 44 or carrier 2 circuit output 47 occurs to the wireless module 41 -- a transistor 45 or a transistor 48 -- it energizes according to the switching effectiveness of the transistor which happens because one of base terminals ****, carrier 1 lamp 46 or carrier 2 lamp 49 lights up, and the check of "that it is is outputting to carrier 1or2 circuit" is made. therefore, the receiving side ID (identity recognition) is not in agreement in whether although the plotting board of warning dispplay equipment has not carried out dispplay actuation, when the wireless check lamp 4 is on, the transmitter side ID (identity recognition) is different -- that decision becomes possible simply. And if it wires by changing on that spot after performing the output check of a receiving channel in a construction site, when modification of construction conditions etc. arises during the installation work of this car approach direction dispplay system, a channel setup can be performed immediately and certainly and quick construction will be made.

[0033] The alphabetic character check lamp 5 about lighting of the plotting board of this warning dispplay system C is explained to the last of the example of the second operation gestalt of this invention. When the signal of dispplay is emitted by the plotting board 91 of drawing 5 (b) and (c) through an alphabetic character and the arrow-head control circuit 51 based on the control signal transmitted from the approach direction sensing sensor B from the wireless module 41, an output 52 is made, it **** to the base terminal of a transistor 53, energization takes place by the switching effectiveness therefore produced to a transistor 53, and lighting of the alphabetic character check lamp 5 "under plotting board lighting" is made. In addition, the plotting board alphabetic character 50 of drawing 8 expresses dispplay of the plotting board 91 of the actually turned-on warning dispplay equipment (warning dispplay equipments 73 and 74 of drawing 3 -5), a connector 55 connects with said alphabetic character check lamp 5, this actual dispplay aligns with actual dispplay, and monitoring is made.

[0034] And on the control panel 90 of the warning dispplay system C shown in drawing 9 (b), each display lamp is turned on and each display check lamp of the above-mentioned maintenance lamp 1, the protection lamp 2, the wireless lamp 4, the alphabetic character check lamp 5, carrier 1 lamp 46, and carrier 2 lamp 49 is checked. In addition, 14 in drawing is a maintenance switch into which it is put by the beginning of a verification procedure, and is a reset (reboot) switch used when repair etc. is performed by the fault extract by check, it finishes, 15 in drawing reboots and it performs an actuation check.

[0035] The example of the continuing third operation gestalt of this invention is explained in full detail with each circuit diagram of drawing 11 -12 about the drawing 10 attention sign system D by which maintenance check gestalten differ with an information system similar to the warning dispplay system explained in the example of the second operation gestalt. The contents of dispplay are set up as a cautions notice system by which the attention sign system D of drawing 10 was installed in the beginning point of the long downward slope of the mountain slope road of a cold district. Usually, the container reference plate D1 has reported the attention sign of "downward slope cautions" of drawing 10 (b). When it is in a situation the wind and the atmospheric temperature sensor D3 arranged in control box D7 rear face sense predetermined conditions to be it, and freezing of a road surface is expected to be, it is made as [report / the attention sign of "freezing cautions" of a container reference plate D1 expressed to drawing 10 (a)]. In here, various dispplays are made according to the purpose of use -- an application is a mere example, it is installed in the curve point along a road, and lighting dispplay of "curve cautions" and the dispplay with "it is ** as speed **" is carried out by turns.

[0036] Moreover, in the control box D7 of the attention sign system D of the example of a **** 3 operation gestalt, like the warning dispplay system C of the example of the second operation gestalt, the control circuit D4, the dc-battery D2, and this protection network D6 grade are contained by the condition which can be maintained and checked like a detailed explanation below, and the solar battery D5 is utilized as a power source. Hereafter, it explains in full detail with the block diagram showing each outline circuit of drawing 11 (a), (b), drawing 12 (a), and (b) about maintenance of this warning-sign system D, and the extensive form voice of check.

[0037] The following configurations showed the block diagram showing actuation of the attention sign system D. Namely, the gestalt, this drawing (b) where a maintenance circuit always operates during drawing 11 (a); equipment actuation; It does not usually indicate by maintenance during equipment actuation. the gestalt in which a maintenance circuit operates only when a maintenance switch is turned on -- moreover To drawing 12 , the circuit of the transistor included in the luminescence display means and maintenance circuit for a check check which contains either at least as a configuration of another object The case where connect both with a means of

communication by the cable or wireless at the time of a maintenance check, and the check of the operating state of said attention sign system is made is shown. The gestalt, this drawing (b) which constitute only the luminescence display means for a this (drawing a); check as another object; it considered as the luminescence display means for a check, and the gestalt which constitutes both of the transistor included in the maintenance circuit as another object. in addition, about the working principle of the luminescence display means for a maintenance check It is as having explained previously that the lighting display of the lamp for a check of an operating state was made by the energization generated by the switching effectiveness of a transistor in connection with **** to the base terminal of the transistor included in the maintenance circuit in full detail in explanation of the example of each second operation gestalt for a start [of this invention]. Since it is based on the same principle, explanation in the following description is omitted.

[0038] It is made as [check / the protection lamp 2 showing actuation of the protection network of accumulation-of-electricity equipment D2, the alphabetic character check lamp 5 showing actuation of an indicator, the maintenance lamp 1 in which it is shown that it is / check / of a maintenance / under actuation, and **********], and the attention sign system D shown in drawing 11 -12 was shown in the maintenance switch for starting actuation of a maintenance check to 14 in drawing.

[0039] First, it sets in the gestalt of "always maintaining during equipment actuation" shown in drawing 11 (a). The control circuit D4 consists of a power control circuit and a luminescence circuit which operates an indicator D1. It is contained with accumulation-of-electricity equipment D2 by the control box D7 which expresses to drawing 10 , and the lamp:protection lamp 2 for the operating state check of this dispplay equipment and the alphabetic character check lamp 5 are made as [check / by looking in at the control box D7 of drawing 10].

[0040] Only when the gestalt of the above-mentioned "always maintain during equipment actuation" is put into the maintenance switch 14, it is what carried out as a gestalt for which a maintenance check is possible, and with the gestalt of "maintaining at the time of maintenance switching action" shown in continuing drawing 11 (b), the maintenance lamp 1 under check actuation of a maintenance is shown in addition to the protection lamp 2 for the aforementioned operating state check and the alphabetic character check lamp 5 is incorporated.

[0041] next, (a) which shows the gestalt which constitutes both of the transistor of the gestalt which constitutes only the luminescence display means for a check check of drawing 12 as another object, the luminescence display means for a check, and a maintenance circuit as another object, and (b) -- it was alike, respectively, it attached and the control unit D8 built in in the body of this attention sign system D was expressed with the thick dashed line in drawing. In here, by (a), each of transistors 13 and 23 which makes the maintenance lamp 1 and the protection lamp 2 turn on is prepared in the circuit of a control unit D8, and each lamps 1, 2, and 5 for a maintenance check by LED are formed in maintenance check unit D9 side circuit connected with a control unit D8 (cable as [Here] a means of communication) as a luminescence display means for a check. Moreover, in (b), the transistors 13 and 23 all over the circuit of (a) are formed in the circuit by the side of the maintenance check unit D9.

[0042] Thus, by constituting the transistor of the luminescence display means for a check check, or/and a maintenance circuit as another object The maintenance check unit D9 only for maintenance checks is shared, and it can utilize for the maintenance of maintenance and check of two or more attention sign systems. It is not necessary to include the lamps 1, 2, and 5 for a maintenance check, and these transistors 13 and 23 in each attention sign system in the circuit of a body at the appearance shown in drawing 11 (a) and (b), and the control unit of low cost is constituted. Especially the maintenance and check that utilized the maintenance check unit D9 of such a gestalt are effective for maintenance check organization in case attention sign systems are a large number.

[0043] Finally the block diagram of drawing 13 explains the example of the fourth operation gestalt of this invention by the example of a weather preliminary announcement system. Progress of the sensing data obtained by ** and the humidity sensor which shows the weather preliminary announcement system E of drawing 13 to E3, It is that by which the weather several hours after collating the data program constructed based on are recording data with a mutual combination of the ** and humidity memorized by the memory section E5 is announced beforehand in CPU:E4, it is transmitted to the dispplay unit E1, and information is made. As opposed to the maintenance check unit E9 into which each lamp for a maintenance check of the display check lamp 1, the protection lamp 5 of accumulation-of-electricity equipment, and the ** and a humidity sensor sensing lamp 3 was built from CPU:E4 It is made as [transmit / the maintenance information about actuation of a control unit E8].

[0044] And the analysis based on the are recording data obtained from these maintenance information in CPU:E4 in the control unit E8 of this weather preliminary announcement system E should do again. Each hysteresis of the electrical potential difference and charge transition of the actuation situation of the protection network of the actuation situation accumulation-of-electricity equipment of a display, or accumulation-of-electricity equipment,

and a ** and a humidity sensor (for example, it is a thing relevant to the equipment and the device for traffic paints mentioned above) etc. Each data distinction of sensing confirmed information, such as the number of sensing and sum total operating time by ********, and a day-and-night change rate transition situation, etc. should do. The information is outputted to the luminescence dispplay means E7 (drawing CRT) of another object through the maintenance check unit E9 or its external output terminal E6, and dispplay of a long-term data analysis result etc. is made.

[0045] Records (the equipment and the device for traffic paints traffic information etc.) of the maintenance information for not only daily equipment operation but life management of for example, accumulation-of-electricity equipment or operation according to the season of equipment, the weather transition information which are further acquired from the actuation situation are acquired, and it is applied to the operation program modification etc. by the long-term data-analysis result obtained from the analysis based on the are-recording data obtained from such maintenance information.

[0046]

[Effect of the Invention] In the dispplay equipment with which information is made by the dispplay means based on the output signal with which this invention maintenance display system is emitted from a control means as explained in full detail above **** [as opposed to / the circuit for a maintenance check is prepared all over the circuit which constitutes a control means and a transistor is included in this circuit for a maintenance check, and / this transistor] of the electrical potential difference for a check, According to a switching operation of the transistor which happens by **** of the electrical potential difference of the control signal outputted from said control means Since the part of the fault can specify about when it is made as [be / the check of the operating state of said dispplay equipment by the luminescence display means / possible] and there is fault of equipment, The facility equipment which becomes possible [carrying out check / repair correspondence immediately], and constitutes the dispplay equipment can be restored at an early stage. Moreover, since the control signal for operating dispplay equipment is led to a bypass circuit, acts as a monitor and the check of the operating state of equipment is made, it is constituted without incorporating the exclusive instrument for monitors, when it is various to dispplay equipment and control is made, and maintenance and function manager of dispplay equipment improve.

[0047] In this invention maintenance display Moreover, the luminescence display means for the check of the operating state of said dispplay equipment, And the circuit of the transistor included in the maintenance check which contains either at least is constituted as another object. When the circuit of said exception object is connected to said dispplay equipment with a means of communication on the occasion of maintenance and check of said dispplay equipment and it is made as [be / the check of the operating state of said dispplay equipment / possible] There is no need of including the circuit for a maintenance check in all the facility equipments that constitute dispplay equipment. Since a maintenance check can be immediately performed on the spot in which the unit for a maintenance check was connected to according to the need for maintenance check, and these dispplay equipment was installed The efficiency of maintenance check improves from becoming unnecessary to make a check with an impossible posture dispplay equipment with efficient maintenance check being attained and generally being installed [much] in a height with a means of communication by the cable or wireless.

[0048] And it sets to this invention maintenance display again. Maintenance data analysis is made in the data distinction circuit of a microcomputer, and presenting of the maintenance information on said dispplay equipment based on the data analysis is performed in the circuit of another object for said maintenance check. or when made by the luminescence display means connected to the another object By the analysis result of long range data based on the are recording data obtained not only from the operation operating state maintenance of every day of dispplay equipment but from maintenance information etc. For example, operation of this dispplay equipment that record of life management of accumulation-of-electricity equipment, the operation management for every season of equipment, sensing / observation information further acquired from that actuation situation was acquired, and feedback was made by that operation program modification etc., and suited the actual condition more is attained.

[0049] Further again this invention maintenance display When an activity is made in the facility fields for traffic paints, such as a road, as what consists of a control circuit included in the device of dispplay equipments for traffic paints, such as a road There is much what an indicator dispplay device, the floodlight, the signalling lamp, etc. which are especially installed in along a road have in a height, and runs into difficulties to a maintenance check activity. From constraint of location, such as being difficult, a traffic situation, etc., intercepting traffic over long duration on the occasion of maintenance check, such as an application like the example of the road rivet furthermore embedded by the road A sharp reduction of the effort which the check of a check -> cause of fault takes when failure occurs, and time amount progress is called for. On the occasion of a trouble, it conforms, and

the traffic-paint function which has [equipment] restoration of a check -> failure part for a short time as possible to it is restored, or the very big effectiveness of simplifying the usual maintenances, such as maintenance and check, is done so.

[0050] In addition, it sets to this invention maintenance display again. When light emitting diode is used as a luminescence display means used for a maintenance check Incorporate this maintenance check circuit, without the maintenance check in small power being possible, and hardly affecting the power consumption of the body of equipment, and easy maintenance and check are made visually. And when displayed according to a color according to the classification of a checking circuit, an incorrect check can be prevented and a positive check is made.

[0051] And since actuation with small power is further made rather than a transistor when it replaces with the transistor used into a maintenance circuit in this invention maintenance indicating equipment again and a field-effect transistor (FET) is used, it can be used suitable also for the application which a circuit can be simply designed since the feeble current which comes from a sensor etc. can also be coped with directly, and is asked for sensing precision.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention] This invention is what always discovers a fault part comparatively simple on the occasion of the maintenance of the difficult facility equipment of the maintenance check for whether it being ****, and enables implementation of efficient maintenance check. The dispplay equipment which is in a height at the time of the maintenance of the indicator dispplay device especially installed along a road, a floodlight, a signalling lamp, etc., etc., and runs into difficulties to a maintenance check activity, Or a traffic-paint facility equipment with it difficult [to intercept traffic over long duration on the occasion of maintenance check of the dispplay equipment of the application represented by the road rivet embedded by the road etc.], It is related with the maintenance display used suitably in the case of maintenance check of the dispplay equipment for carrying out the information of the public relations, the advertisement, etc. for many and unspecified persons, and a notice.

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PRIOR ART

[Description of the Prior Art] A difficult facility equipment of the maintenance check for whether it being **** which is represented by the traffic-paint facility installed along a road always conventionally An effort great when failure occurs from constraint of location, a traffic situation, etc., and time amount progress to the check of a check -> cause of fault On ****, In addition, the facility equipment etc. had produced the serious problem that functional maintenance of the traffic paint which it originally has became difficult, and a very dangerous condition continued until the failure part was restored. Although there is a thing which the electrical potential difference to which the cell built in the construction LGT for roads fell further again is prevented [thing] by the resistance in a circuit, is [thing] un-conducting current, and makes a monitor lamp switch off It is not what was considered about the maintenance about the various functions which are restricted only to the application of the sag of a cell and are represented by said traffic-paint facility. Moreover, in spite of being used for Nighttime, it has the fundamental fault of a monitor lamp being switched off and not noticing a cell voltage fall.

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EFFECT OF THE INVENTION

[Effect of the Invention] In the dispplay equipment with which information is made by the dispplay means based on the output signal with which this invention maintenance display system is emitted from a control means as explained in full detail above **** [as opposed to / the circuit for a maintenance check is prepared all over the circuit which constitutes a control means and a transistor is included in this circuit for a maintenance check, and / this transistor] of the electrical potential difference for a check, According to a switching operation of the transistor which happens by **** of the electrical potential difference of the control signal outputted from said control means Since the part of the fault can specify about when it is made as [be / the check of the operating state of said dispplay equipment by the luminescence display means / possible] and there is fault of equipment, The facility equipment which becomes possible [carrying out check / repair correspondence immediately], and constitutes the dispplay equipment can be restored at an early stage. Moreover, since the control signal for operating dispplay equipment is led to a bypass circuit, acts as a monitor and the check of the operating state of equipment is made, it is constituted without incorporating the exclusive instrument for monitors, when it is various to dispplay equipment and control is made, and maintenance and function manager of dispplay equipment improve.

[0047] In this invention maintenance display Moreover, the luminescence display means for the check of the operating state of said dispplay equipment, And the circuit of the transistor included in the maintenance check which contains either at least is constituted as another object. When the circuit of said exception object is connected to said dispplay equipment with a means of communication on the occasion of maintenance and check of said dispplay equipment and it is made as [be / the check of the operating state of said dispplay equipment / possible] There is no need of including the circuit for a maintenance check in all the facility equipments that constitute dispplay equipment. Since a maintenance check can be immediately performed on the spot in which the unit for a maintenance check was connected to according to the need for maintenance check, and these dispplay equipment was installed The efficiency of maintenance check improves from becoming unnecessary to make a check with an impossible posture dispplay equipment with efficient maintenance check being attained and generally being installed [much] in a height with a means of communication by the cable or wireless.

[0048] And it sets to this invention maintenance display again. Maintenance data analysis is made in the data distinction circuit of a microcomputer, and presenting of the maintenance information on said dispplay equipment based on the data analysis is performed in the circuit of another object for said maintenance check. or when made by the luminescence display means connected to the another object By the analysis result of long range data based on the are recording data obtained not only from the operation operating state maintenance of every day of dispplay equipment but from maintenance information etc. For example, operation of this dispplay equipment that record of life management of accumulation-of-electricity equipment, the operation management for every season of equipment, sensing / observation information further acquired from that actuation situation was acquired, and feedback was made by that operation program modification etc., and suited the actual condition more is attained.

[0049] Further again this invention maintenance display When an activity is made in the facility fields for traffic paints, such as a road, as what consists of a control circuit included in the device of dispplay equipments for traffic paints, such as a road There is much what an indicator dispplay device, the floodlight, the signalling lamp, etc. which are especially installed in along a road have in a height, and runs into difficulties to a maintenance check activity. From constraint of location, such as being difficult, a traffic situation, etc., intercepting traffic over long duration on the occasion of maintenance check, such as an application like the example of the road rivet furthermore embedded by the road A sharp reduction of the effort which the check of a check -> cause of fault takes when failure occurs, and time amount progress is called for. On the occasion of a trouble, it conforms, and the traffic-paint function which has [equipment] restoration of a check -> failure part for a short time as

possible to it is restored, or the very big effectiveness of simplifying the usual maintenances, such as maintenance and check, is done so.

[0050] In addition, it sets to this invention maintenance display again. When light emitting diode is used as a luminescence display means used for a maintenance check Incorporate this maintenance check circuit, without the maintenance check in small power being possible, and hardly affecting the power consumption of the body of equipment, and easy maintenance and check are made visually. And when displayed according to a color according to the classification of a checking circuit, an incorrect check can be prevented and a positive check is made.

[0051] And since actuation with small power is further made rather than a transistor when it replaces with the transistor used into a maintenance circuit in this invention maintenance indicating equipment again and a field-effect transistor (FET) is used, it can be used suitable also for the application which a circuit can be simply designed since the feeble current which comes from a sensor etc. can also be coped with directly, and is asked for sensing precision.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] In order that this invention may solve this problem and may enable it to always maintain the difficult facility equipment of the maintenance check for whether it being **** well, It enables it to check immediately the operational status concerning the function in which a facility equipment is various, by the display system on the spot in which this facility equipment was installed by putting in MENTENANSUSUITCHI ** connected to the circuit for check. When fault is discovered, a fault tends to be detected quickly and it is going to restore a facility equipment at an early stage.

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MEANS

[Means for Solving the Problem] This invention has the following composition for the purpose of solving the above-mentioned conventional problem. Namely, the maintenance display concerning this invention In the dispplay equipment with which information is made by the dispplay means based on the output signal emitted from a control means **** [as opposed to / the circuit for a maintenance check is prepared all over the circuit which constitutes said control means, and a transistor is included in this circuit for a maintenance check, and / this transistor] of the electrical potential difference for a check, It is made as [be / the check of the operating state of said dispplay equipment / possible] with a luminescence display means by switching operation of the transistor which happens by **** of the electrical potential difference of the control signal outputted from said control means.
[0005] Moreover, this invention maintenance display constitutes the circuit of the transistor included in the luminescence display means and the object for a maintenance check for the check of the operating state of said dispplay equipment which contains either at least as another object, connects the circuit of said exception object to this dispplay equipment with a means of communication on the occasion of maintenance and check of said dispplay equipment, and is made as [be / the check of the operating state of this dispplay equipment / possible].
[0006] And the analysis of maintenance data is made in the data distinction circuit of a microcomputer, and this invention maintenance indicating equipment is made again by luminescence display means by which presenting of the maintenance information on said dispplay equipment based on data analysis was connected to the inside of the circuit of another object for said maintenance check, or its another object.
[0007] In the facility fields for traffic paints, such as a road, it is going to utilize this invention maintenance display further again as what consists of a control circuit included in the device of dispplay equipments for traffic paints, such as a road.
[0008] In addition, light emitting diode is used for this invention maintenance display as a luminescence display means used for a maintenance check again.
[0009] And this invention maintenance indicating equipment is replaced with the transistor used into the circuit for a maintenance check, and a field-effect transistor (FET) is used for it again.
[0010]
[Embodiment of the Invention] First, the maintenance of the spontaneous light type road rivet embedded and installed in a road about the example of the first operation gestalt of this invention is explained using drawing 1 and 2. (b) (a):plan, which show the spontaneous light type road rivet A constituted so that drawing 1 might apply this invention maintenance display system and the operating state might be maintained and checked simply: It is cross-section structural drawing and luminescence dispplay is made according to the actuation program set up beforehand by the control signal emitted from control circuit A4 which the emitter A1 used accumulation-of-electricity equipment A2 as the power source, and was included in the control board. That is, A3 is an illuminance sensor, when an illuminance falls rather than the fixed set point at the time of twilight and a sudden shower, the illuminance sensing signal is sent to control circuit A4, and as a result based on the control signal of a predetermined actuation program (it blinks for example, the whole number of fixed seconds) with which the emitter A1 was set up, actuation (repeat of flashing etc.) is made.
[0011] In case it is the fall of the are recording power of this accumulation-of-electricity equipment A2, in order the power generated by solar-battery A5 is accumulated in accumulation-of-electricity equipment A2, to be stabilized in an emitter A1, and the electric power supply is made, and to prevent degradation of accumulation-of-electricity equipment A2 the very thing, the accumulation-of-electricity equipment protection network A6 is established in the control board. That is, it is made as [halt / the electric power supply to an emitter A1] until the accumulation-of-electricity equipment protection network A6 operates and the are recording power of

accumulation-of-electricity equipment A2 is recovered, when it becomes below the setting power that has little generated output by SIGMET continuing etc., and has are recording of power. And the maintenance checking circuit for maintenance and check is built in this spontaneous light type road rivet A. It is made as [light up / the luminescence annunciator of the maintenance lamp 1 in which under actuation of a maintenance check is shown]. During actuation of a maintenance checking circuit, when the accumulation-of-electricity equipment protection network A6 is operating, the accumulation-of-electricity equipment protection lamp 2 lights up. If illuminance sensor sensing is performed normally, the check of an operating state is simply made possible by each luminescence display means of the maintenance lamp 1 -- the sensor sensing lamp 3 lights up -- the protection (accumulation-of-electricity equipment) lamp 2, and the sensing (sensor) lamp 3.

[0012] When there is fault that an emitter A1 does not blink conventionally by this, Although it was unknown whether the cause was what depends on other failures whether illuminance sensor A3 operates normally or it will not be because the accumulation-of-electricity equipment protection network A6 is operating and the electric power supply to an emitter A1 is stopped temporarily further again Since near fault can be guessed with each luminescence display means for a maintenance check by this invention maintenance display system, it becomes easy to form a cure. In addition, if made as [fix / it / check and], without digging up a road rivet at every fault like before by removing the lockscrew A8 which is fixing the plastic lens object A7 of this spontaneous light type road rivet A as shown in drawing 1 , the time amount required by restoration of a failure part can be managed with a necessary minimum short time also about the blockade performed between check and repair in short ****, and maintenance and check will become very easy. In addition, in drawing 1 , A9 is waterproofing packing, such as a product made of rubber, and is made as [achieve / so that the moisture of storm sewage etc. may not trespass upon the interior the inside of the body with which the accumulation-of-electricity equipment A2 of the spontaneous light type road rivet A by which laying-under-the-ground installation was carried out was contained, and control circuit A4 were incorporated, such as a control board and a light-emitting part, / a waterproofing function].

[0013] Moreover, although the above-mentioned explanation explained the case where actuation of a maintenance checking circuit was always set as actuation in control circuit A4 For example, a program which operates only in the time zone restricted by the signal based on the sensing signal sent from sensing sensor A3 may be constructed. Luminescence dispplay is made, and a maintenance checking circuit may be stopped at Nighttime with much power consumption, or the traffic of a car makes it operate only in little several hours of midnight conversely, and it may be made with a setup of maintenance and check being performed.

[0014] Then, the actuation is explained in full detail with the block diagram of drawing 2 having shown the circuit of an outline about the above-mentioned spontaneous light type road rivet A explaining the example of the first operation gestalt to which this invention maintenance display system was applied. The maintenance lamp 1 for a maintenance check was formed, the base terminal of the transistor 13 which firm output of the power output 12 for a check of that maintenance is carried out, and was connected to the maintenance lamp 1 with this output 12 ****(ed), the energization by the switching effectiveness of a transistor took place, and the maintenance lamp 1 shown in "under maintenance circuit actuation" has switched on the light in the block diagram showing actuation of the spontaneous light type road rivet A of drawing 2 . Since 16 connected to the collector terminal of this transistor 13 among drawing is a power source for actuation by which firm gas is carried out from accumulation-of-electricity equipment, if maintenance lamp 1 the very thing does not light up, it will check the existence of the abnormalities of accumulation-of-electricity equipment first, or should just check the circuit of the maintenance lamp 1. That is, it is shown whether accumulation-of-electricity equipment is committing this maintenance lamp 1, and the duty which can be functionally said also as a power-source actuation lamp is achieved in that semantics.

[0015] Moreover, although it is for accumulation-of-electricity equipment A2 being in the inside of the body A spontaneous light type road rivets, and the power electromotive was carried out [power] by solar-battery A5 being conserved, being stabilized irrespective of fluctuation of intensity of radiation, and supplying power When the power with which there was much power consumption and it was accumulated when a day with little intensity of radiation, such as rainy weather, continued, as explained in full detail above decreases, The protection network is incorporated in order to avoid that an excessive load is applied and this dc-battery itself deteriorates, when a dc-battery is used as accumulation-of-electricity equipment A2. When this accumulation-of-electricity equipment protection network operates and an output 22 is made, by ****(ing) to the base terminal of a transistor 23, energization by the switching effectiveness of a transistor occurs and it is made as [light up / the protection lamp 2 meaning "under protection network actuation"].

[0016] Illuminance sensor A3 is built in the appearance furthermore mentioned above to this spontaneous light type road rivet A. Actuation should do based on the predetermined actuation program control signal with which

actuation was made based on the illuminance sensing signal, and the emitter A1 was set up when an illuminance fell rather than the fixed set point at the time of twilight and a sudden shower. An output 32 is made by dispatch and coincidence of this control signal, and the base terminal of a transistor 33 ****, energization by the switching effectiveness of a transistor occurs, and it is made as [light up / the sensing lamp 3 meaning "under illuminance sensor sensing"].

[0017] Next, the car approach direction dispplay system for avoiding a collision at the crossing of the car which runs two crossing roads upon meeting suddenly is explained to an example about the example of the second operation gestalt of this invention based on drawing 3 -9. crossing 6*7 when, as for drawing 3 , the main road 7 and the bypath way 6 cross each of the car sensing equipments 63 and 65 with which the approach direction sensing sensor B which expressed and applied this invention was built in -- crossing 6*7 It is installed for meeting. the front bypath way 6 -- Sensing and detection of a car whose each passes through the bypath way 6 by making 64 and 66 into detection area are performed. The bypath way 6 to crossing 6*7 Crossing 6*7 which met the main road 7 from each of the car sensing equipments 63 and 65 only when the going car was detected Were installed to the front. Wireless transmission is carried out at the warning dispplay equipments 73 and 74 with which the warning dispplay system C which applied this invention was built in. the main road 7 top -- crossing 6*7 the driver of the going transit cars 71 and 72 etc. -- receiving -- the bypath way 6 to crossing 6*7 existence of the car which approaches, and its approach direction -- reporting -- warning -- emitting -- cautions -- ******** -- it is made like.

[0018] Drawing 4 is the car sensing equipments 63 and 65 with which the circuit for a maintenance check which applied this invention was built in. After converging the infrared radiation emitted from the car which advanced into the detection area 64 and 66 with Fresnel lens 81, reaching the thermal element, making sensing of a car and making processing of sensing information with a microcomputer It is a crossing 6*7 about the bypath way 6 top. Only when the going transit car is detected, it is made as [carry out / at the warning dispplay equipments 73 and 74 currently separately installed from the transmitting antenna 82 / wireless transmission]. In addition, 83 in drawing is a power source for a photovoltaic cell being shown, becoming car sensing equipment 63, the accumulation-of-electricity equipment built in in 65, and a set, and working the amplifying-circuit -> microcomputer control-section -> signal transmitting section of this equipment.

[0019] Drawing 5 is the photovoltaic cell 93 as a power source for working these equipments by transmitting electricity to the warning container reference plate 91, the control box 94 and a receiving antenna 92, and the accumulation-of-electricity equipment built in the control box 94, and the warning dispplay equipments 73 and 74 which consisted of **********.

[0020] It sets to drawing 3 and car sensing equipment 63 is a crossing 6*7 about the bypath way 6. When it goes and the car 61 it runs has been sensed in the detection area 64 As mentioned above, sensing / detection process in car sensing equipment 63 is performed. Crossing 6*7 Go, perform the judgment with the vehicle for detection to approach, and the warning dispplay equipments 73 and 74 are operated by wireless. It is a crossing 6*7 about the main road 7 top. As opposed to the driver of the car 71 it goes and runs etc. The rightward arrow head 95 of the warning container reference plate 91 of drawing 5 (b) of warning dispplay equipment 73 is blinked, it combines with the flashing display "under vehicle approach", and warning is reported. Cautions ******** one side, It is a crossing 6*7 about the main road 7 top. Blink the leftward arrow head 96 of the warning container reference plate 91 of drawing 5 (c) of warning dispplay equipment 74 also to the driver of the car 72 it goes and runs from hard flow etc., combine with the flashing display "under vehicle approach", report warning, and cautions are ******(ed). It is made as [avoid / beforehand / the collision of a car].

[0021] moreover, drawing 3 -- setting -- car sensing equipment 65 -- the bypath way 6 top in the detection area 66 -- crossing 6*7 from, when the car 62 keeping away has been sensed It is made as [induce / malfunction by the infrared radiation from the car going back], without being excepted from the judgment with the car under approach by distinction of sensing / detection process of car sensing equipment 65, and a control signal being sent to the warning dispplay equipments 73 and 74.

[0022] In addition, a car is a crossing 6*7 to the coincidence from the both sides which faced the bypath way 6 of drawing 3 across the main road 7. Go and also about the case where it is approaching The flashing display of the arrow head which above-mentioned predetermined sensing / detection process is performed, and a control signal is transmitted from both the equipments of the car sensing equipments 63 and 65 to the warning dispplay equipments 73 and 74, respectively, combines the car sensing equipments 63 and 65 with the flashing display "under vehicle approach", and shows the approach direction of a car is made. In this case, the alarm display of the leftward arrow head 96 shown in the alarm display and drawing 5 (c) of the rightward arrow head 95 the flashing display of an arrow head is indicated to be to drawing 5 (b) according to the program set up beforehand is performed by turns by a unit of several seconds, respectively, or warning dispplay is made with a car approach

warning device with which the arrow head of the both-directions sense on either side was arranged.
[0023] In the car approach direction dispplay system for avoiding a collision at the crossing of drawing 3 -5 mentioned above upon meeting suddenly, this invention maintenance display is applied in the warning dispplay system C built in the approach direction sensing sensor B built in the car sensing equipments 63 and 65, and the warning dispplay equipments 73 and 74. Hereafter, actuation of drawing 6 , the approach direction sensing sensor B shown in 8, and the warning dispplay system C is explained in full detail with a flow chart. In addition, in (a) of the warning dispplay equipments 73 and 74, (b) expresses each control panel of this invention maintenance display system for the appearance of the equipment with which they were built in to drawing 7 , the car sensing equipments 63 and 65 with which 9 built these [B and C] in, and a list.
[0024] If put into the maintenance switch 14 in the flow chart which shows actuation of the approach direction sensing sensor B of drawing 6 , an output 12 is outputted by electromotive [of the fixed time-amount (for example, 30 minutes) maintenance check power source 10 which the maintenance actuation timer 11 started and was set up], it is ****(ed) at the base terminal of the transistor 13 connected to the maintenance lamp 1, and the maintenance lamp 1 "under maintenance circuit actuation" is shown will switch on the light. 16 [in addition,] connected to the collector terminal of this transistor 13 -- the car sensing equipments 63 and 65 of drawing 3 -5 -- in order to work each, it is the power source for actuation by which firm gas is carried out from accumulation-of-electricity equipment.
[0025] By the way, the dc-battery (battery) used for this example of an operation gestalt as accumulation-of-electricity equipment is in the body of the car sensing equipments 63 and 65 having the approach direction sensing sensor B. Although it is for the power by which electromotive was carried out being conserved, being stabilized irrespective of fluctuation of intensity of radiation, and supplying power by the photovoltaic cell 83 shown in drawing 7 (a) When a day with little intensity of radiation, such as rainy weather, continues and the power with which many power consumption was accumulated as compared with the generation-of-electrical-energy force decreases, in order to avoid that an excessive load is applied to a dc-battery and the dc-battery itself deteriorates, the protection network 21 is incorporated. Then, as a result of making an output 22 from that circuit at the time of this dc-battery protection network 21 actuation, when the base terminal of a transistor 23 ****, energization by the switching effectiveness of a transistor occurs and it is made as [light up / the protection lamp 2 meaning "under protection network actuation"]. When the approach direction sensing sensor B should not operate by the ability checking actuation of this dc-battery protection network, the condition of that they are that power is not supplied or the thing depended on the fault of equipment in addition to this since that cause is dc-battery protection network operating, etc. and faults can be judged comparatively easily.
[0026] Moreover, when the sensing element of the approach direction sensing sensor B has sensed the car which passes through detection area, it judges with an object vehicle [sensing / detection process is performed and] (car which approaches toward a crossing in the example of drawing 3 -5) to detect, and in order to make it transmit to warning dispplay equipment by wireless, a signal output is made to the transmitting section. then, take out this detection output 32 from the object sensing circuit 31, make it output as an object for a maintenance check, make it **** to the base terminal of a transistor 33, it is made to energize according to the switching effectiveness of a transistor, and the sensing lamp 3 is turned on -- making -- "-- now -- sensing -- an object vehicle -- under detection -- " -- it is made as [check / it]. A check comes to be able to perform immediately the activity (for actual dispplay to be checked visually) of a sensing -> detection -> actuation check currently conventionally performed by two operators by one operator by enabling sensing / detection check of this sensor.
[0027] And on the control panel 80 of the approach direction sensing sensor B shown in drawing 7 (b), each display lamp 1, 2, and 3 is turned on, and the above-mentioned maintenance lamp 1, the protection lamp 2, and the sensing lamp 3 are checked. In addition, 14 in drawing is a maintenance switch into which it is put by the beginning of a verification procedure, and is a reset (reboot) switch used when repair etc. is performed by the fault extract by check, it finishes, 15 in drawing reboots and it performs an actuation check.
[0028] Next, if put into the maintenance switch 14 in the flow chart which shows actuation of the warning dispplay system C of drawing 8 An output 12 is outputted while an electrical potential difference is supplied from the maintenance check power source 10 between fixed time amount (for example, 30 minutes) which the maintenance actuation timer 11 started and was set up. The base terminal of the transistor 13 connected to the maintenance lamp 1 ****, and the maintenance lamp 1 in which "under maintenance circuit actuation" is shown lights up. In addition, 16 connected to the collector terminal of this transistor 13 is a power source for actuation by which firm gas is carried out from accumulation-of-electricity equipment in order to operate each function of the warning dispplay equipments 73 and 74 of drawing 3 -5.
[0029] and also about the dc-battery (battery) for working these warning dispplay equipments 73 and 74 Like

above-mentioned car sensing equipment 63 and the dc-battery for 65 operation, in order to avoid degradation of the dc-battery, the dc-battery protection network 21 is incorporated. In case a protection network operates, it energizes according to the switching effectiveness of the transistor which happens because an output 22 is taken out from the circuit and the base terminal of a transistor 23 ****, and lighting of the protection lamp 2 "under protection network actuation" is made. therefore, interruption of an electric power supply [be / a cause in case the warning dispplay system C does not operate according to the check of actuation of the dc-battery protection network 21 like the case of the approach direction sensing sensor B / under / dc-battery protection network actuation / depending] -- or whether it is what is depended on the fault of equipment in addition to this can judge easily.

[0030] Then, the wireless lamp 4, carrier 1 lamp 46, and carrier 2 lamp 49 are explained. When sensing / detection process of a car is performed in said approach direction sensing sensor B and the judgment of object car detection is made, it is transmitted to warning dispplay equipment (warning dispplay equipments 73 and 74 of drawing 3 -5) by wireless, and is received by the wireless module 41 in the warning dispplay system C built into this warning dispplay equipment through the receiving antenna 92. An output is made as an active signal with which the data signal with which the subcarrier was removed in the wireless module 41 is taken out, and, as for the received signal, controls concrete dispplay etc. If this signal output is made to **** to the base terminal of a transistor 43 as an output 42 of a wireless check circuit, it can check that energization by the switching effectiveness of a transistor takes place, lighting of the wireless check lamp 4 "under wireless reception" is made, and reception is made normally.

[0031] By the way, when two or more set number is used in many cases, for example, the warning dispplay equipment in the example of the car approach direction dispplay system of drawing 3 -5 is in arrangement of the car of drawing 3 , the arrow head 96 of facing the left [arrow head / 95 / rightward] must be displayed on warning dispplay equipment 74 by warning dispplay equipment 73, respectively, and the warning dispplay equipment made into the purpose must be controlled correctly. The method of the dispatch from which two or more channels are prepared and a frequency differs having done enough, in order to avoid malfunction (i.e., in order to prevent the interference at the time of reception), when it is the example of the second operation gestalt to which this invention was applied, or setting a data setup as a proper pattern for every channel is taken. Therefore, from the need of making ID (identity recognition) in agreement in a receiving circuit, and connecting so that it may become ID (identity recognition) of the frequency of a radio signal or data pattern sent from a transmitter, and a pair, carrier 1 lamp 46 and carrier 2 lamp 49 were prepared in order to check the propriety of the connection.

[0032] namely, the case where carrier 1 circuit output 44 or carrier 2 circuit output 47 occurs to the wireless module 41 -- a transistor 45 or a transistor 48 -- it energizes according to the switching effectiveness of the transistor which happens because one of base terminals ****, carrier 1 lamp 46 or carrier 2 lamp 49 lights up, and the check of "that it is is outputting to carrier 1or2 circuit" is made. therefore, the receiving side ID (identity recognition) is not in agreement in whether although the plotting board of warning dispplay equipment has not carried out dispplay actuation, when the wireless check lamp 4 is on, the transmitter side ID (identity recognition) is different -- that decision becomes possible simply. And if it wires by changing on that spot after performing the output check of a receiving channel in a construction site, when modification of construction conditions etc. arises during the installation work of this car approach direction dispplay system, a channel setup can be performed immediately and certainly and quick construction will be made.

[0033] The alphabetic character check lamp 5 about lighting of the plotting board of this warning dispplay system C is explained to the last of the example of the second operation gestalt of this invention. When the signal of dispplay is emitted by the plotting board 91 of drawing 5 (b) and (c) through an alphabetic character and the arrow-head control circuit 51 based on the control signal transmitted from the approach direction sensing sensor B from the wireless module 41, an output 52 is made, it **** to the base terminal of a transistor 53, energization takes place by the switching effectiveness therefore produced to a transistor 53, and lighting of the alphabetic character check lamp 5 "under plotting board lighting" is made. In addition, the plotting board alphabetic character 50 of drawing 8 expresses dispplay of the plotting board 91 of the actually turned-on warning dispplay equipment (warning dispplay equipments 73 and 74 of drawing 3 -5), a connector 55 connects with said alphabetic character check lamp 5, this actual dispplay aligns with actual dispplay, and monitoring is made.

[0034] And on the control panel 90 of the warning dispplay system C shown in drawing 9 (b), each display lamp is turned on and each display check lamp of the above-mentioned maintenance lamp 1, the protection lamp 2, the wireless lamp 4, the alphabetic character check lamp 5, carrier 1 lamp 46, and carrier 2 lamp 49 is checked. In addition, 14 in drawing is a maintenance switch into which it is put by the beginning of a verification procedure, and is a reset (reboot) switch used when repair etc. is performed by the fault extract by check, it

finishes, 15 in drawing reboots and it performs an actuation check.
[0035] The example of the continuing third operation gestalt of this invention is explained in full detail with each circuit diagram of drawing 11 -12 about the drawing 10 attention sign system D by which maintenance check gestalten differ with an information system similar to the warning dispplay system explained in the example of the second operation gestalt. The contents of dispplay are set up as a cautions notice system by which the attention sign system D of drawing 10 was installed in the beginning point of the long downward slope of the mountain slope road of a cold district. Usually, the container reference plate D1 has reported the attention sign of "downward slope cautions" of drawing 10 (b). When it is in a situation the wind and the atmospheric temperature sensor D3 arranged in control box D7 rear face sense predetermined conditions to be it, and freezing of a road surface is expected to be, it is made as [report / the attention sign of "freezing cautions" of a container reference plate D1 expressed to drawing 10 (a)]. In here, various dispplays are made according to the purpose of use -- an application is a mere example, it is installed in the curve point along a road, and lighting dispplay of "curve cautions" and the dispplay with "it is ** as speed **" is carried out by turns.
[0036] Moreover, in the control box D7 of the attention sign system D of the example of a **** 3 operation gestalt, like the warning dispplay system C of the example of the second operation gestalt, the control circuit D4, the dc-battery D2, and this protection network D6 grade are contained by the condition which can be maintained and checked like a detailed explanation below, and the solar battery D5 is utilized as a power source. Hereafter, it explains in full detail with the block diagram showing each outline circuit of drawing 11 (a), (b), drawing 12 (a), and (b) about maintenance of this warning-sign system D, and the extensive form voice of check.
[0037] The following configurations showed the block diagram showing actuation of the attention sign system D. Namely, the gestalt, this drawing (b) where a maintenance circuit always operates during drawing 11 (a); equipment actuation; It does not usually indicate by maintenance during equipment actuation. the gestalt in which a maintenance circuit operates only when a maintenance switch is turned on -- moreover To drawing 12 , the circuit of the transistor included in the luminescence display means and maintenance circuit for a check check which contains either at least as a configuration of another object The case where connect both with a means of communication by the cable or wireless at the time of a maintenance check, and the check of the operating state of said attention sign system is made is shown. The gestalt, this drawing (b) which constitute only the luminescence display means for a this (drawing a); check as another object; it considered as the luminescence display means for a check, and the gestalt which constitutes both of the transistor included in the maintenance circuit as another object. in addition, about the working principle of the luminescence display means for a maintenance check It is as having explained previously that the lighting display of the lamp for a check of an operating state was made by the energization generated by the switching effectiveness of a transistor in connection with **** to the base terminal of the transistor included in the maintenance circuit in full detail in explanation of the example of each second operation gestalt for a start [of this invention]. Since it is based on the same principle, explanation in the following description is omitted.
[0038] It is made as [check / the protection lamp 2 showing actuation of the protection network of accumulation-of-electricity equipment D2, the alphabetic character check lamp 5 showing actuation of an indicator, the maintenance lamp 1 in which it is shown that it is / check / of a maintenance / under actuation, and **********], and the attention sign system D shown in drawing 11 -12 was shown in the maintenance switch for starting actuation of a maintenance check to 14 in drawing.
[0039] First, it sets in the gestalt of "always maintaining during equipment actuation" shown in drawing 11 (a). The control circuit D4 consists of a power control circuit and a luminescence circuit which operates an indicator D1. It is contained with accumulation-of-electricity equipment D2 by the control box D7 which expresses to drawing 10 , and the lamp:protection lamp 2 for the operating state check of this dispplay equipment and the alphabetic character check lamp 5 are made as [check / by looking in at the control box D7 of drawing 10].
[0040] Only when the gestalt of the above-mentioned "always maintain during equipment actuation" is put into the maintenance switch 14, it is what carried out as a gestalt for which a maintenance check is possible, and with the gestalt of "maintaining at the time of maintenance switching action" shown in continuing drawing 11 (b), the maintenance lamp 1 under check actuation of a maintenance is shown in addition to the protection lamp 2 for the aforementioned operating state check and the alphabetic character check lamp 5 is incorporated.
[0041] next, (a) which shows the gestalt which constitutes both of the transistor of the gestalt which constitutes only the luminescence display means for a check check of drawing 12 as another object, the luminescence display means for a check, and a maintenance circuit as another object, and (b) -- it was alike, respectively, it attached and the control unit D8 built in in the body of this attention sign system D was expressed with the thick dashed line in drawing. In here, by (a), each of transistors 13 and 23 which makes the maintenance lamp 1 and the protection lamp 2 turn on is prepared in the circuit of a control unit D8, and each lamps 1, 2, and 5 for a

maintenance check by LED are formed in maintenance check unit D9 side circuit connected with a control unit D8 (cable as [Here] a means of communication) as a luminescence display means for a check. Moreover, in (b), the transistors 13 and 23 all over the circuit of (a) are formed in the circuit by the side of the maintenance check unit D9.

[0042] Thus, by constituting the transistor of the luminescence display means for a check check, or/and a maintenance circuit as another object The maintenance check unit D9 only for maintenance checks is shared, and it can utilize for the maintenance of maintenance and check of two or more attention sign systems. It is not necessary to include the lamps 1, 2, and 5 for a maintenance check, and these transistors 13 and 23 in each attention sign system in the circuit of a body at the appearance shown in drawing 11 (a) and (b), and the control unit of low cost is constituted. Especially the maintenance and check that utilized the maintenance check unit D9 of such a gestalt are effective for maintenance check organization in case attention sign systems are a large number.

[0043] Finally the block diagram of drawing 13 explains the example of the fourth operation gestalt of this invention by the example of a weather preliminary announcement system. Progress of the sensing data obtained by ** and the humidity sensor which shows the weather preliminary announcement system E of drawing 13 to E3, It is that by which the weather several hours after collating the data program constructed based on are recording data with a mutual combination of the ** and humidity memorized by the memory section E5 is announced beforehand in CPU:E4, it is transmitted to the dispplay unit E1, and information is made. As opposed to the maintenance check unit E9 into which each lamp for a maintenance check of the display check lamp 1, the protection lamp 5 of accumulation-of-electricity equipment, and the ** and a humidity sensor sensing lamp 3 was built from CPU:E4 It is made as [transmit / the maintenance information about actuation of a control unit E8].

[0044] And the analysis based on the are recording data obtained from these maintenance information in CPU:E4 in the control unit E8 of this weather preliminary announcement system E should do again. Each hysteresis of the electrical potential difference and charge transition of the actuation situation of the protection network of the actuation situation accumulation-of-electricity equipment of a display, or accumulation-of-electricity equipment, and a ** and a humidity sensor (for example, it is a thing relevant to the equipment and the device for traffic paints mentioned above) etc. Each data distinction of sensing confirmed information, such as the number of sensing and sum total operating time by ********, and a day-and-night change rate transition situation, etc. should do. The information is outputted to the luminescence dispplay means E7 (drawing CRT) of another object through the maintenance check unit E9 or its external output terminal E6, and dispplay of a long-term data analysis result etc. is made.

[0045] Records (the equipment and the device for traffic paints traffic information etc.) of the maintenance information for not only daily equipment operation but life management of for example, accumulation-of-electricity equipment or operation according to the season of equipment, the weather transition information which are further acquired from the actuation situation are acquired, and it is applied to the operation program modification etc. by the long-term data-analysis result obtained from the analysis based on the are-recording data obtained from such maintenance information.

[Translation done.]

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] (a) for explaining application to the spontaneous light type road rivet of the first example of an operation gestalt of this invention is a plan, and (b) is cross-section structural drawing.
[Drawing 2] It is the circuit diagram showing the actuation in the first example of an operation gestalt of drawing 1 of an outline.
[Drawing 3] It is a plane configuration Fig. showing arrangement of the car in a crossing in the second example of an operation gestalt of this invention, and sensing and dispplay each equipment.
[Drawing 4] It is a perspective view showing the appearance of the car sensing equipment with which the approach direction sensing sensor of the example of an operation gestalt of this invention second of drawing 3 was built in.
[Drawing 5] It is the front view of the perspective view showing the (a) appearance of the warning dispplay equipment with which the warning dispplay system of the example of the operation gestalt of this invention second of drawing 3 was built in and (b), and (c) warning container reference plate.
[Drawing 6] It is the outline circuit diagram which expresses actuation of the approach direction sensing sensor about an example of this invention operation gestalt.
[Drawing 7] They are a perspective view showing the appearance of the mobile sensing equipment with which the approach direction sensing sensor was built in which applied the example of this invention operation gestalt shown in drawing 6 , and the front view of a control panel.
[Drawing 8] It is the outline circuit diagram which expresses actuation of a warning dispplay system about an example of this invention operation gestalt.
[Drawing 9] They are a perspective view showing the appearance of the control box where the warning dispplay system was built in which applied the example of this invention operation gestalt shown in drawing 8 , and the front view of the control panel of a warning dispplay system.
[Drawing 10] (a) of the appearance of the attention sign equipment with which the attention sign system of the example of the third operation gestalt of this invention was built in is a perspective view, and (b) is the front view of a container reference plate.
[Drawing 11] It is the block diagram showing the outline circuit for explaining the actuation about the attention sign equipment of the example of an operation gestalt of this invention third of drawing 10 . :(a),(b)
[Drawing 12] It is the block diagram showing the outline circuit for explaining the actuation about the attention sign equipment of the example of an operation gestalt of this invention third of drawing 10 . :(a),(b)
[Drawing 13] It is the block diagram showing the circuit of the outline for the explanation of the example of application expansion given in the circuit of another object about data distinction with the microcomputer of a weather preliminary announcement system of the fourth example of an operation gestalt of this invention, and dispplay of an analysis result.
[Description of Notations]
A Spontaneous light type road rivet
A1 Emitter
A2 Accumulation-of-electricity equipment
A3 Illuminance sensor
A4 Control circuit
A5 Solar battery
A6 Accumulation-of-electricity equipment protection network
A7 Plastic lens object
A8 Fixed screw

A9 Waterproofing packing
1 Maintenance Lamp
10 Maintenance Check Power Source
11 Maintenance Actuation Timer
12 Output (Maintenance)
13 Transistor (Maintenance)
14 Maintenance Switch
15 Reset Switch
16 Power Source for Actuation
2 Protection Lamp
21 Protection Network
22 Output (Protection Network)
23 Transistor (Protection Network)
3 Sensing Lamp
31 Sensing Circuit
32 Output (Sensing)
33 Transistor (Sensing)
4 Wireless Lamp
41 Wireless Module
42 Output (Wireless)
43 Transistor (Wireless)
44 Output (Carrier 1)
45 Transistor (Carrier 1)
46 Carrier 1 Lamp
47 Output (Carrier 2)
48 Transistor (Carrier 2)
49 Carrier 2 Lamp
5 Alphabetic Character Check Lamp
50 Plotting Board Alphabetic Character
51 Alphabetic Character, Arrow-Head Display
52 Output (Alphabetic Character, Arrow Head)
53 Transistor (Alphabetic Character, Arrow Head)
55 Connector
6 Bypath Way
7 The Main Road
6*7 Crossing
61, 62, 71, 72 Car
63 65 Car sensing equipment
64 66 Detection area
73 74 Warning dispplay equipment
B The approach direction sensing sensor
80 Control Panel (the Approach Direction Sensing Sensor)
81 Fresnel Lens
82 Transmitting Antenna
83 Photovoltaic Cell
C Warning dispplay system
90 Control Panel (Warning Dispplay System)
91 Warning Container Reference Plate
92 Receiving Antenna
93 Photovoltaic Cell
94 Control Box
95 Rightward Arrow Head
96 Leftward Arrow Head
D Attention sign system
D1 Container reference plate
D2 Accumulation-of-electricity equipment

D3 A wind and atmospheric temperature sensor
D4 Control circuit
D5 Solar battery
D6 Accumulation-of-electricity equipment protection network
D7 Control box
D8 Control unit
D9 Maintenance check unit
E Weather preliminary announcement system
E1 Dispplay unit
E2 Accumulation-of-electricity equipment
E3 Temperature and humidity sensor
E4 CPU
E5 Memory section
E6 External output terminal
E7 Luminescence dispplay means of an exception object
E8 Control unit
E9 Maintenance check unit

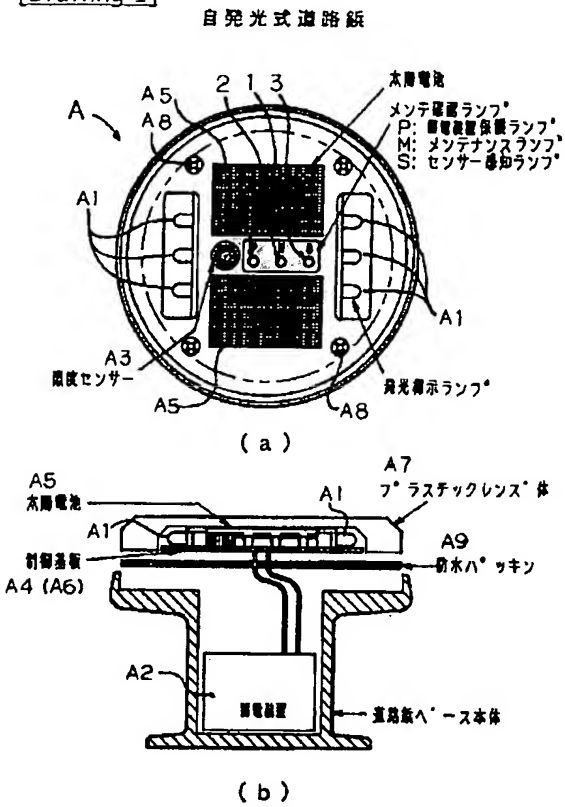
[Translation done.]

* NOTICES *

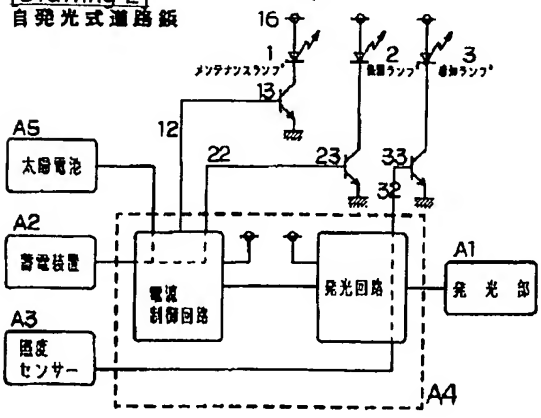
1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

DRAWINGS

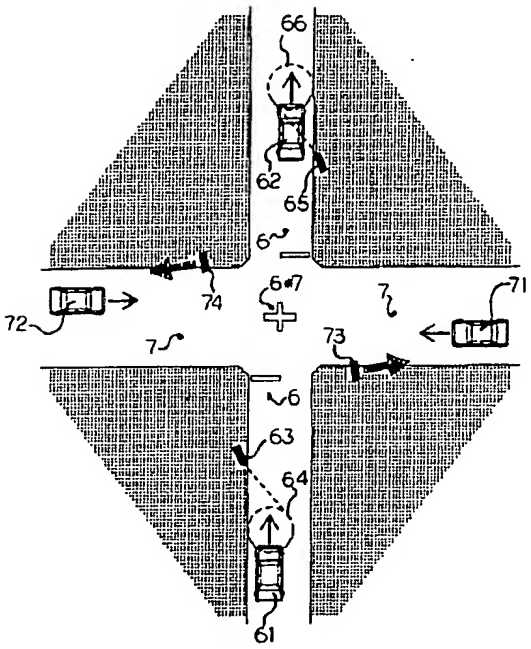
[Drawing 1]



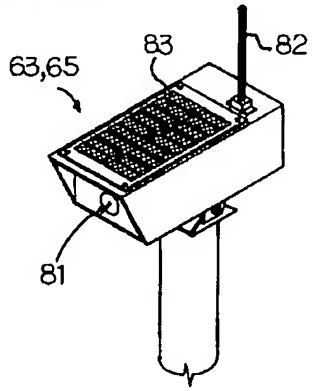
[Drawing 2]



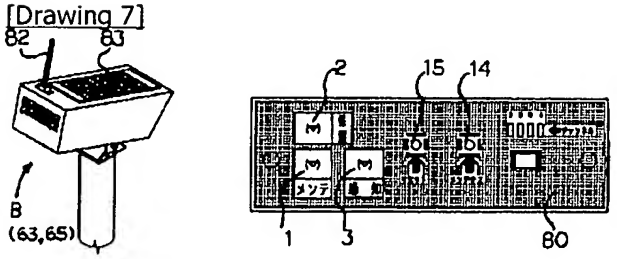
[Drawing 3]



[Drawing 4]
接近方向感知センサー

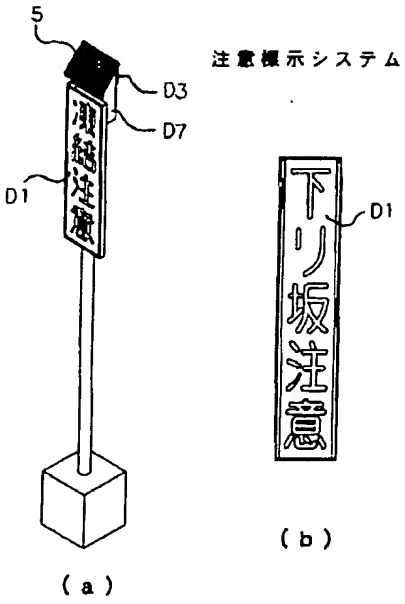


[Drawing 7]

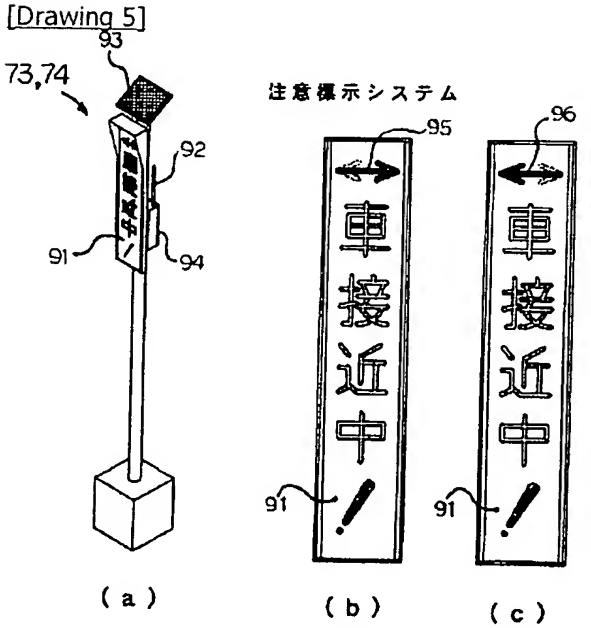


(a) (b)

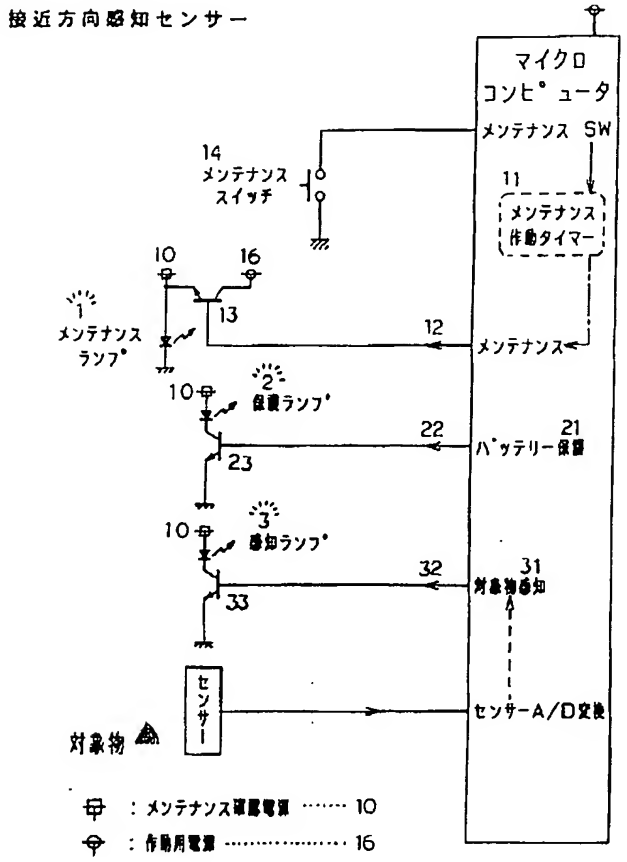
[Drawing 10]



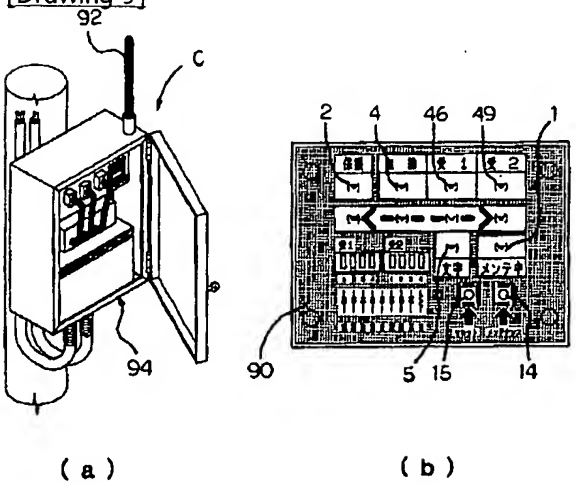
[Drawing 5]



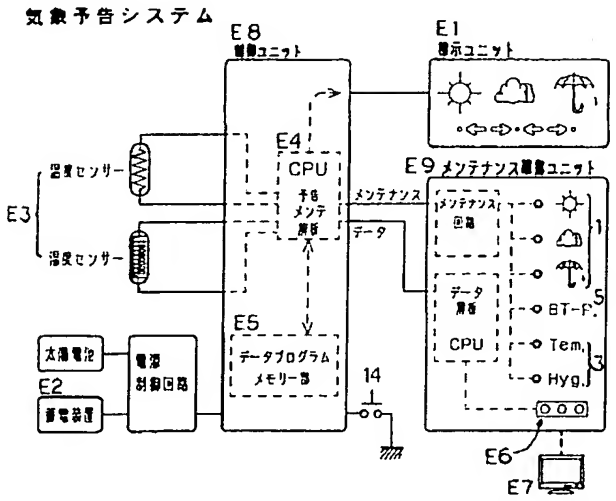
[Drawing 6]



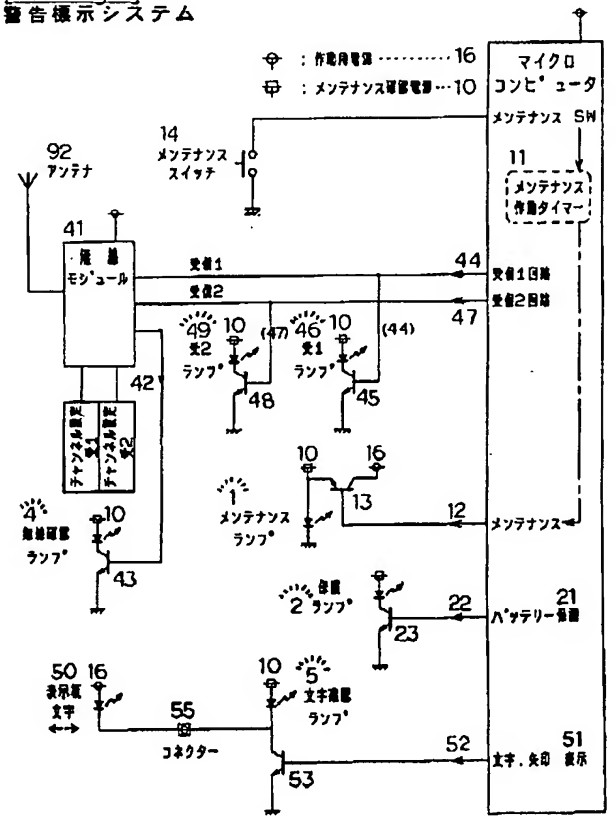
[Drawing 9]



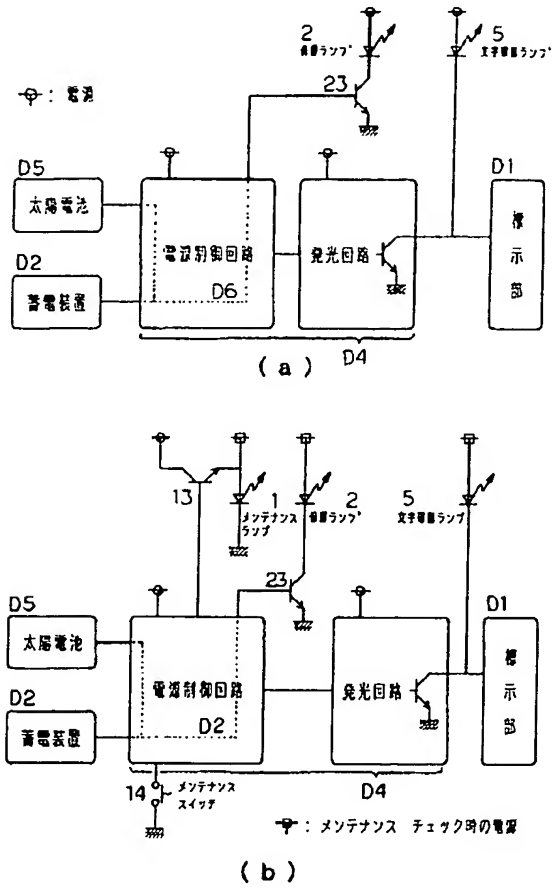
[Drawing 13]



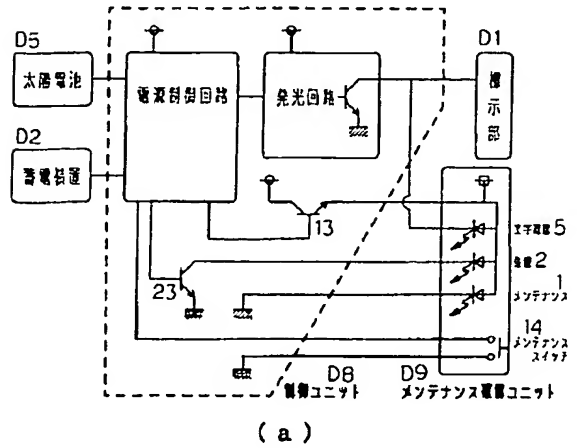
[Drawing 8]



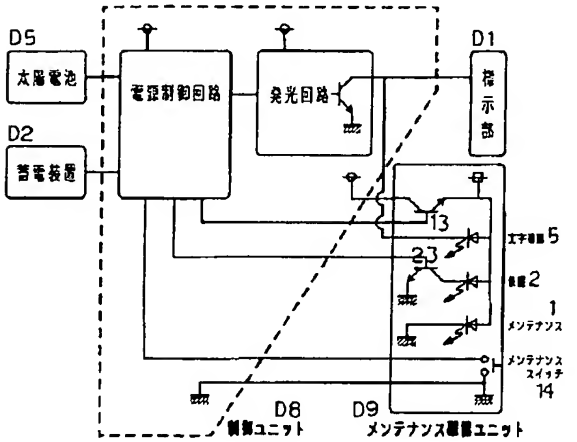
[Drawing 11]


2
5
23
D5
太陽電池
D2
蓄電装置
電源制御回路
D6
発光回路
D1
表示部
D4
(a)
13
1
メンテナンスランプ
2
5
23
D5
太陽電池
D2
蓄電装置
電源制御回路
D2
発光回路
D1
表示部
14
メンテナンススイッチ
D4
：メンテナンス チェック時の電源
(b)

[Drawing 12]



(a)



(b)

[Translation done.]